

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS

1-5. (canceled)

6. (new) An interface unit for digital data communication operable to connect to a bus for communication with a plurality of partner communication devices, comprising:

a transmitter operable to transmit arbitration signals onto the bus for communication to the partner communication devices; and

a receiver operable to receive arbitration signals from the bus from the partner communication devices;

wherein, during a bus initialization phase, said transmitter is operable to transmit a bus reset signal onto the bus for transmission to the partner communication devices when said interface unit is in a reset start state and said interface unit is operable to enter a reset wait state in response to passage of a predetermined period of time and only after receiving a response to the bus reset signal from each of the partner communication devices.

7. (new) An interface unit as claimed in claim 6 wherein said interface unit is operable to enter the reset wait state

only in response to the response from each partner communication device including a bus reset signal.

8. (new) An interface unit as claimed in claim 6 wherein said transmitter is operable to transmit the bus reset signal to each of the partner communication devices.

9. (new) An interface unit as claimed in claim 8 wherein said transmitter is operable to transmit an idle signal onto the bus after passage of said predetermined period of time.

10. (new) An interface unit as claimed in claim 9 further being operable to enter a tree identification phase only after said receiver receives a signal from each of the partner communication devices in response to the idle signal.

11. (new) An interface unit as claimed in claim 10 wherein the signal in response to the idle signal from one or more of the partner communication devices includes a signal requesting designation of a node including the respective partner communication device as a child node of a node including said interface unit.

12. (new) A network including a bus and a plurality of nodes each including an interface unit as claimed in claim 6 and

a processor, said bus permitting communication between respective ones of said nodes, said nodes including said partner communication devices.

13. (new) A network as claimed in claim 12 wherein the communication between the respective ones of said nodes includes duplex communication.

14. (new) An interface unit as claimed in claim 6 wherein said interface unit is operable to transmit the signals onto the bus and to receive the signals from said bus in accordance with a physical layer conforming to the IEEE 1394 specification.

15. (new) An interface unit as claimed in claim 14 wherein said predetermined period of time is a period of time specified for a short bus reset according to the IEEE P1394a draft specification.

16. (new) An interface unit for digital data communication operable to connect to a bus to which a plurality of the interface units are operable to connect, comprising:

 a transmitter operable to transmit arbitration signals onto the bus for communication to the other interface units operable to connect to the bus; and

a receiver operable to receive arbitration signals from the bus from the other interface units operable to connect to the bus,

wherein, during a bus initialization phase, said transmitter is operable to transmit a bus reset signal onto the bus for communication to the other interface units when said interface unit is in a reset start state and said interface unit is operable to enter a reset wait state in response to passage of a predetermined period of time and only after receiving a response to the bus reset signal from each of the other interface units connected to the bus.

AI

17. (new) A method for bus initialization in an interface unit connected to a bus for digital data communication with a plurality of partner communication devices, comprising:

transmitting a bus reset signal by said interface unit onto the bus for transmission to the partner communication devices;

waiting a predetermined period of time by said interface unit after beginning said transmitting;

receiving responses to the bus reset signal from the partner communication devices by said interface unit; and

entering a reset wait state by said interface unit upon passage of said predetermined period of time and only after receipt of said responses from each of the partner communication devices.

18. (new) A method for bus initialization as claimed in claim 17 wherein said interface unit enters the reset wait state only in response to the response from each partner communication device including a bus reset signal.

19. (new) A method for bus initialization as claimed in claim 18 further comprising transmitting an idle signal onto the bus by said interface unit after passage of said predetermined period of time.

20. (new) A method for bus initialization as claimed in claim 19 further comprising

receiving a signal from each partner communication device in response to said idle signal; and

entering a tree identification phase by said interface unit only thereafter.

21. (new) A method for bus initialization as claimed in claim 20 wherein signals from the partner communication devices in response to said idle signal include a signal requesting designation of a node including the partner communication device as a child node of a node including said interface unit.

22. (new) A method for bus initialization as claimed in claim 17 wherein said digital data communication includes duplex communication.

23. (new) A method for bus initialization as claimed in claim 21 wherein said transmitting and said receiving is performed in accordance with a physical layer conforming to the IEEE 1394 specification.

24. (new) A method for bus initialization as claimed in claim 22 wherein said predetermined period of time is a period of time specified for a short bus reset according to the IEEE P1394a draft specification.
